REMARKS

Entry of this Preliminary Amendment before continued examination of the instant application is respectfully requested. Upon entry of this Amendment, claims 24-33 and 35-41 remain in the application. Claim 34 is canceled herein without prejudice. New claims 49 and 50 have been added herein in order to set forth additional specific embodiments of Applicants' invention. Support for the new claims may be found throughout the specification as filed. Reconsideration of the claims is respectfully requested.

Claims 24-37 stood rejected (in the Final Office Action dated March 20, 2007) under 35 U.S.C. 102(e) as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as being obvious over Gopalan et al. (U.S. Patent No. 6,492,051). The Examiner stated that Gopalan teaches a fuel cell including an air electrode, an electrolyte, a fuel electrode, and a solution based interlayer. The Examiner further stated that the solution based interlayer includes a two phase mixture of particles: 1) yttria stabilized zirconia or doped cerium oxide and 2) doped lanthanum manganite and an organic binder. The Examiner noted that the claims are product by process claims, and that the product itself does not depend on the process of making it.

While Applicants respectfully take issue with the Examiner's conclusion that the fuel cell of Gopalan anticipates or renders obvious Applicants' invention as defined in claims 24-37, Applicants have amended independent claim 24 to more particularly point out and distinctly claim the subject matter that Applicants regard as the invention. Applicants' amended claim 24 recites that the metal oxide-film is established on a substrate selected from single crystal silicon, polycrystalline silicon, and silicon oxide containing dielectric substrates.

Gopalan does teach a two-phase mixture of particles as an interlayer between an air electrode and the electrolyte. As such, either the electrode or the electrolyte of Gopalan may be considered a substrate upon which the interlayer is established. In sharp contrast to the substrate recited in Applicants' claim 24, however, Gopalan teaches that the air electrode consists essentially of a cerium and calcium doped $LaMnO_3$ (see Col. 2, lines 57-59), that the electrolyte consists essentially of stabilized zirconia (see Col. 2, lines 59-60), and that the fuel electrode consists essentially of a cermet material (see Col. 2, lines 61-62).

Since Gopalan states that the electrodes and electrolyte consist essentially of the respective materials, it is submitted that he does not teach or suggest alternate electrode or electrolyte materials.

As the substrate of Applicants' claim 24 is neither taught nor suggested by Gopalan, it is submitted that the reference neither anticipates nor renders obvious Applicants' fuel cell as defined in claim 24. For all the reasons stated above, it is submitted that Applicants' invention as defined in claim 24, and those claims depending ultimately therefrom, is not anticipated, taught or rendered obvious by Gopalan, either alone or in combination, and patentably defines over the art of record.

Claim 38 stood rejected (in the Final Office Action dated March 20, 2007) under 35 U.S.C. 103(a) as being obvious over Gopalan et al. in view of Borglum et al. (US Patent No. 6,139,985). The Examiner stated that Gopalan does not teach a metal oxide film that has a thickness as recited in claim 38. The Examiner further stated that Borglum teaches a CeO_2 film having such a thickness.

Applicants reiterate the arguments made hereinabove regarding Gopalan, and further submit that Borglum does not supply the deficiencies of Gopalan. More particularly, Borglum teaches that the air electrode is a porous, doped lanthanum manganite (see Col. 4, lines 12-13), that the electrolyte is an oxide having a fluorite structure or a mixed oxide in the perovskite family, with the preferred example being a stabilized zirconia based ceramic (see Col. 4, lines 17-22), and that the fuel electrode is a cermet (see Col. 4, line 23).

As neither reference, nor a combination thereof, teaches or suggests all of the elements of Applicants' amended claim 24 (from which claim 38 depends), it is submitted that the references do not anticipate or render obvious Applicants' invention as defined in claim 38, which depends ultimately from claim 24.

Claims 39-41 stood rejected (in the Final Office Action dated March 20, 2007) under 35 U.S.C. 103(a) as being unpatentable over Gopalan in view of Ishihara et al. (U.S. Patent No. 5,175,063). The Examiner reiterated the arguments made in regard to the teachings of Gopalan, but admitted that the reference does not teach an electronic device including a load and a fuel cell. The Examiner stated that the Ishihara reference teaches a fuel cell

generator including a SOFC element array connected to a load. The Examiner concluded that it would have been obvious to connect the Gopalan fuel cell to a load.

Applicants reiterate the arguments regarding the Gopalan reference, and submit that Ishihara does not supply the deficiencies of Gopalan. Specifically, Ishihara teaches that the air electrode is doped or non-doped $LaMnO_3$, $CaMnO_3$, $LaNiO_3$, $LaCoO_3$, or $LaCrO_3$ (see Col. 3, lines17-19), that the electrolyte is yttrium stabilized zirconia (see Col. 3, lines 21-23), and that the fuel electrode is nickel-zirconia cermet or cobalt-zirconia cermet (see Col. 3, lines 23-25). As such, it is submitted that the combination of the references does not anticipate or render obvious the invention as defined in Applicants' claim 24, from which claims 39-41 depend.

In summary, claims 24-33 and 35-41 remain in the application. New claims 49 and 50 have been added herein. It is submitted that, through this preliminary amendment, Applicants' invention as set forth in these claims is now in a condition suitable for allowance. Further and favorable consideration is requested. If the Examiner believes it would expedite prosecution of the above-identified application, the Examiner is cordially invited to contact Applicants' Attorney at the below-listed telephone number.

Respectfully submitted,

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